total control®

Installation Manual

MFSPOE-8

Network Switch

URC™

Control the Experience.

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Table Of Contents

Introduction 1

Features 2

Parts Guide 2

Front Panel Description 3

Rear Panel Description 4

MFSPOE-8 Installation Considerations 5

Installation 6

MFSPOE-8 Installed in a Small System 6

MFSPOE-8 Installation Optimized for Max Number of PoE Ports 7

MFSPOE-8 Installed in the area with the Network Distribution 8

Frequently Asked Questions 9

Specifications 10

Limited Warranty Statement 11

End User Agreement 13

Federal Communication Commission Interference Statement 14

Regulatory Information to the user 15

Declaration of Conformity 16

Introduction

The MFSPOE-8 Network switch is the ideal "Plug-n-Play" solution to supply power to Total Control Keypads and IP Cameras, while protecting network WAP's (*Wireless Access Points*) from multicast audio streams.

Total Control products, like the DMS-1200 (*Multi-zone Amplifier*), DMS-100 (*Single-Zone Amplifier*) and the SNP-1 (*Streaming Network Player*), all multicast audio streams onto the LAN. The nature of a "multicast" will shut down all wireless access to the network. The MFSPOE-8 was specifically designed for use with Total Control Systems and incorporates **pre-configured MAC filtering**. MAC Filtering completely solves the issue by confining multicast streams to the switch itself, never allowing streams to affect network traffic in the rest of the house. Pre-configuration means you don't have to be a Network Engineer to configure this switch, simply plug your Total Control products into any port and you're ready to go. "Plug-n-Play" integration produces reliable, predictable network performance.

Warning: NEVER plug a WAP (*Wireless Access Point*) **into the MFSPOE-8, since URC multicast audio streams will shut down any brand or model of WAP.**

There's no need to worry about accidentally damaging any Non-PoE gear with the MFSPOE-8, it will never happen. Eight "Smart" 10/100 PoE *(Power over Ethernet)* auto-sensing ports determine if connected devices are PoE compliant or just standard network devices, and then apply the correct voltages. This greatly simplifies every installation by eliminating the need to run more wires, add separate power supplies (PoE Injectors) and additional AC power strips.

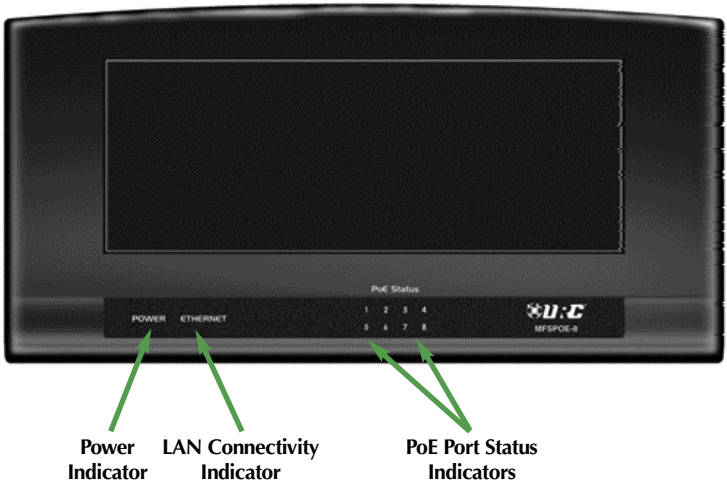
Features

- MAC filtering prevents multicast audio streams from consuming network bandwidth.
- Smart PoE ports support keypads, IP cameras, etc.; also compatible with non-PoE devices.
- Eight (8) 10/100 Smart PoE *(Power-Over-Ethernet)* ports plus one LAN port.
- Activity and Status LEDs, plus Connectivity indicator
- Includes 48 volt power supply

Parts Guide

1 – MFSPOE-8 MAC Filtering Switch with PoE
1 – 1.5M CAT5 Ethernet Cable
1 – 48V AC Power Adapter
1 – Power Cord for AC Power Adapter
1 – Wall Mount Plate and Four Mounting Screws
1 – Quick Install Guide

Front Panel Description

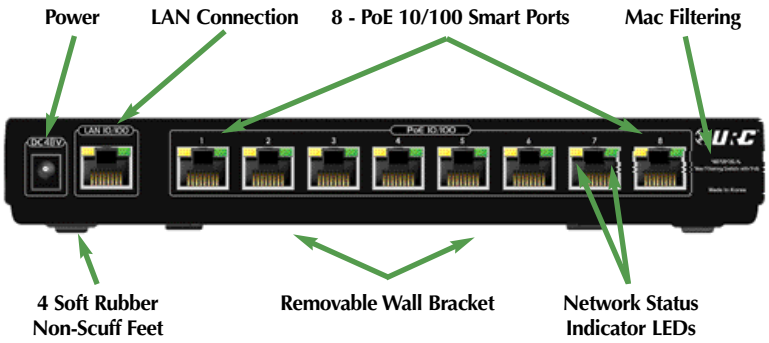


Power Indicator: Illuminates when the MFSPOE-8 Power Supply is connected to AC outlet.

Ethernet Network Connectivity Indicator: Illuminates when the MFSPOE-8 is connected to a LAN and has received an IP Address.

PoE Port Status Indicators: Illuminate when a PoE compliant device is connected to a port.

Rear Panel Description



Power: Provides connection to Included 48V Power Supply.

LAN Connection: Provides connection to the LAN (*Local Area Network*).

PoE 10/100 Smart Ports: 8 - PoE 10/100 Smart Ports automatically provide power and connection to compliant PoE devices like Keypads and IP Cameras, while simultaneously providing a safe, non-powered connection to standard Ethernet devices.

MAC Filtering: MAC Filtering prevents multicast audio streams from consuming network bandwidth. Streams are confined to the switch, optimizing local area network performance.

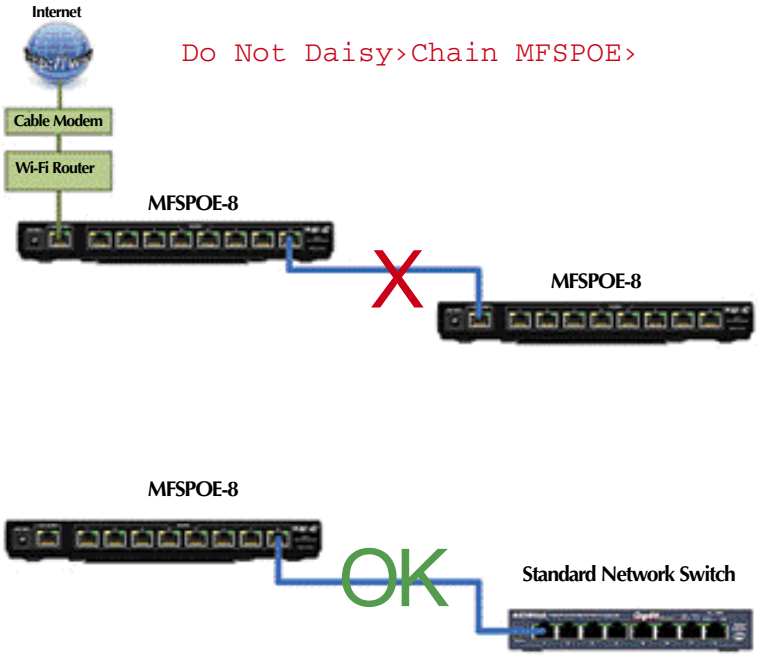
Network Connectivity and Activity Status Indicators (*port specific*): Status indicator LEDs display network connectivity and network traffic feedback, for easy troubleshooting.

Wall Mount Bracket: Convenient removable wall bracket allows the MFSPOE-8 to be mounted to the back of a cabinet or rack. Remove the wall bracket when placing the MFSPOE-8 on a shelf or stand.

MFSPOE-8 Installation Considerations

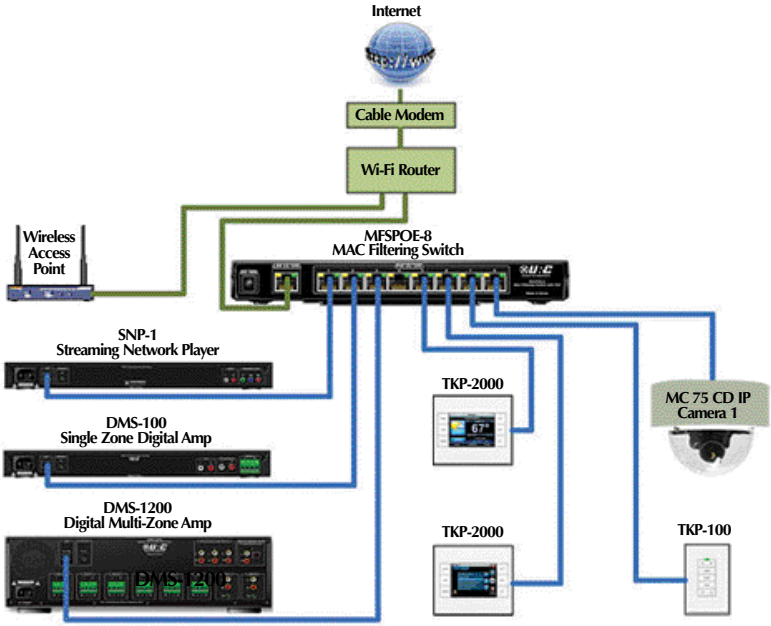
Only ***one*** MAC Filtering switch should be used in a typical Total Control system. All streaming products like the DMS-1200, DMS-100 and SNP-1 ***must*** be connected to the switch. Other Total Control devices that don't stream (like the MRX-10 or the MRX-1) don't have to be connected to the MFSPOE-8.

You **cannot daisy-chain** MFSPOE-8 MAC Filtering switches; communication between switches will be blocked. If you have more than eight of the above streaming components, simply connect a standard network switch to any port on the MFSPOE-8 and then connect the additional components to the standard switch. This allows the additional components to benefit from the MFSPOE-8's MAC Filtering, without affecting communication between devices. If you need more PoE ports, you can plug any standard PoE network switch into any of the available ports, to expand the network.



Installation

1. On the back of the MFSPOE-8, connect one end of a CAT5 cable to the port labeled **LAN 10/100**.
2. Connect the other end of the CAT5 cable to the **LAN** (*Local Area Network*).
3. Connect Total Control and standard network devices to any of the eight **PoE 10/100 Smart Ports**.
4. Connect the supplied 48V Power Supply to the MFSPOE-8 and then plug it into an **unswitched** AC outlet.
5. Once powered up, the unit begins working in approximately 30 seconds.

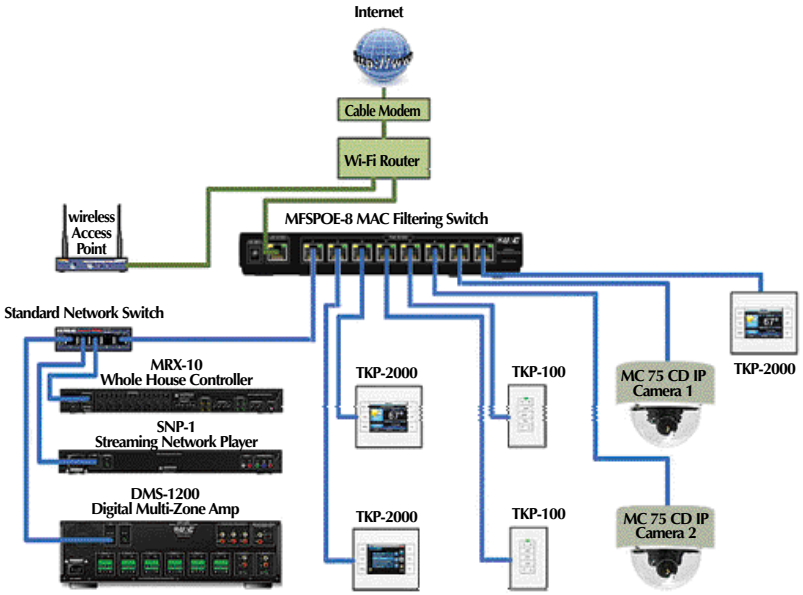


MFSPOE-8 Installed in a Small System

Notes:

- The Wireless Access Point *CANNOT* be connected to the MFSPOE-8; it must be connected to the Router in the LAN.

MFSPOE-8 Installation Optimized for Max Number of PoE Ports

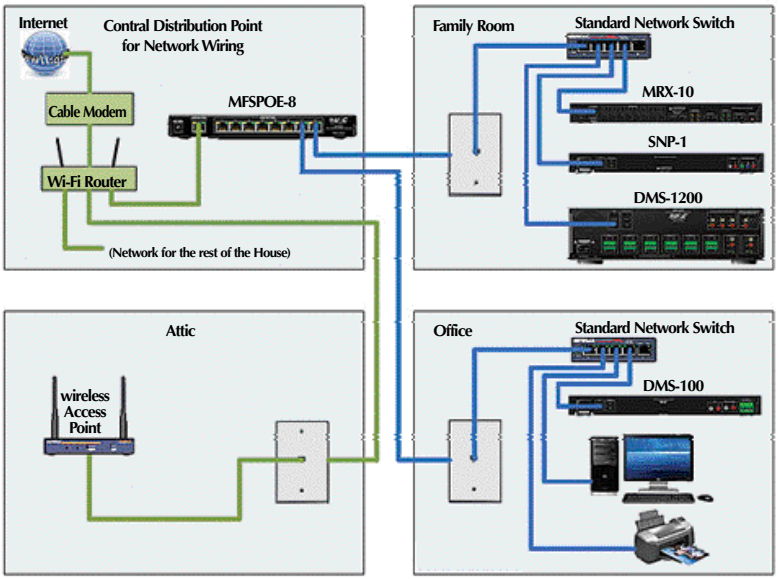


Notes:

- The Wireless Access Point *CANNOT* be connected to the MFSPOE-8; it must be connected to the Router in the LAN.
- A standard network switch is used to connect the DMS-1200 and SNP-1 to the MFSPOE-8. This configuration provides MAC Filtering to the Total Control streaming components, while freeing up additional ports on the MFSPOE-8 to connect PoE devices like Keypads and IP Cameras.
- An MRX-10 doesn't have to be connected to the MFSPOE-8, but can be connected to a standard network switch when convenient to do so.

MFSPOE-8 Installed in the area with the Network Distribution

Occasionally you get a retrofit installation where only one CAT5 wire has been run to a room, and there's no way to run another one. In this case, locate the MFSPOE-8 in the Utility Room, Garage, or wherever the central distribution point for the Network is located and install standard network switches in rooms where you plan to locate a DMS-1200, DMS-100 or SNP-1.



Notes:

- The Wireless Access Point *CANNOT* be connected to the MFSPOE-8; it must be connected to the Router in the LAN.
- Standard network switches are used to connect the DMS-1200, DMS-100 and SNP-1 to the MFSPOE-8. This configuration provides MAC Filtering to the Total Control streaming components, while freeing up additional ports on the MFSPOE-8 to connect PoE devices like Keypads and IP Cameras.
- An MRX-10 doesn't have to be connected to the MFSPOE-8, but can be connected to a standard network switch when convenient to do so.

Frequently Asked Questions

Do I need to use a MFSPOE-8 in a Total Control system?
If you are only controlling a **Home Theater** with a MRX-10, and there are no Total Control streaming sources like the DMS-1200 or DMS-100 in the system, then the answer is **NO**, you do not need to use a MFSPOE-8. If you have DMS-1200(s) or DMS-100(s) in the system, then the answer is **YES**, you ***must*** use a MFSPOE-8 or MFS-8 in the system, connected to the those components.

Can I connect both PoE (*Power over Ethernet*) **devices and Non-PoE devices to the MFSPOE-8?**
Yes, the MFSPOE-8 incorporates Smart Port technology which automatically determines whether a connected device is a PoE device, or a standard device, and only applies voltage to PoE devices. All standard (*Non-PoE*) network devices can safely be connected to the MFSPOE-8.

What if I have more than eight devices that are PoE?
You can connect a standard PoE switch anywhere on the LAN to expand the network.

Can I use the MFSPOE-8 to power a PoE WAP (Wireless Access Point)?
No, the WAP will not function properly when multiple streams are-occurring in the system. Connect the WAP to a standard PoE network switch, outside of the MFSPOE-8. *Never connect a WAP to the MFSPOE-8.*

What if I have a large Total Control system? Should I use the MFSPOE-8?
If you have a large Total Control system with multiple DMS-1200s, DMS-100s, SNP-1s, Keypads and IP Cameras, the better solution is to use a MFS-8 (*the Non-PoE version of the MAC Filtering switch*) to connect all the streaming products and use conventional PoE switches to power all the Keypads and IP Cameras. See the Large System diagram in the MFS-8 User Guide for more details.

I have one CAT5 cable going to a room where my client has a network printer and a PC and I need to install a DMS-100 Single Zone Amplifier, via the same CAT5 cable, in the room. How do I connect everything?

Install the MFSPOE-8 in the room that contains the CAT5 distribution for the entire house. In the room where you plan to install the DMS-100, connect a standard network switch to the incoming CAT5, and then connect the DMS-100, PC and Printer to the switch. It is not recommended to connect PCs used for internet gaming to a MFSPOE-8, as this may affect the performance of video gaming during heavy stream usage.

Specifications

Microprocessor: 55MHz RISC

Memory: 4 Megabits of Serial Flash, 512KB Flash, 128KB SRAM

Network: Switching - Eight 10/100 Ethernet ports + Eight PoE ports
LAN - One 10/100 Ethernet port

Power Supply: 48V External Power Supply

POWER OUT: 8 Port POE OUTPUT(6.2W*8=50W, 1PORT MAX=15.4W)

Size: 1.5″ x 9.8″ x 4.9″ (H X W x D)

Weight: 0.78 lbs. (0.35kg)

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In the event of any warranty claim, URC will, at its sole option, repair the URC equipment using new or comparable rebuilt parts, or exchange the URC equipment for new or rebuilt equipment. **In the event of a defect, these are the end user's exclusive remedies.**

All the URC equipment returned for service, exchange or repair require an RGA number. To obtain an RGA number, you must complete a Return Request Form which you may obtain by calling (914) 835-4484 or contacting URC at returnrequest@universalremote.com. To obtain warranty service, end user must deliver the URC equipment, freight prepaid, in its original packaging or packaging affording adequate protection to URC at 420 Columbus Avenue, Valhalla, NY 10595. It is end user's responsibility to backup any macro programming, artwork, software or other materials that may have been programmed into the unit. It is likely that such data, software, or other materials will be lost during service and URC will not be responsible for any such damage or loss. A dated purchase receipt, bill of sale, installation contract or other verifiable proof of purchase is required. For the URC equipment support and other important information, please visit URC's website available at www.universalremote.com or call the Customer Service Center at (914) 835-4484.

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End User Agreement

The terms and conditions of the End User Agreement available at www.universalremote.com/eua.php shall apply.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning!

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Note : The manufacturer is not responsible for any Radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

FCC Caution

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

Regulatory Information to the user

■ CE conformity Notice

Products with "CE" marking comply EMC Directive 2004/108/EC issued by the commission of the European Community.

1) EMC Directive

- ●Emission : EN 55022
- ●Immunity : EN 55024
- ●Power : EN-61000-3-2, 3

■ Declaration of Conformity

"Hereby, Universal Remote Control Inc. declares that this MFSPOE-8 is in compliance with the Essential requirements and other relevant provisions of EMC Directive 2004/108/EC."

URC™
Control the Experience.

Certification	CE
Type No.(Model No.)	MFSPOE-8
Batch/Serial No.	-
Power Rating	48.0V ⎓, 1.25A

Declaration of Conformity

Company Name	:	Universal Remote Control Inc.
Company Address	:	500Mamaroneck Avenue, Harrison, NY 10528, U.S.A
Contact Info rmation	:	www.universalremote.com Phone: (914)835-4484 Fax: (914)835-4532
Brand Name	:	UNIVERSAL remote control
Product Name	:	Mac Filtering Switch with PoE
Model Name	:	MFSPOE-8

This product herewith complies with the requirements of EMC Directive (2004/108/EC) issued by the Commission of the European Community

Compliance with these directives implies conformity to the following European Community

- EMC Directive
  - EN 55022
  - EN 55024
  - EN 61000-3-2
  - EN 61000-3-3

List of test reports and/or certificate verified compliance with the standards above

- EMC Directive
  - Report No.
  - Testing Laboratory : Gumi College EMC Center

Date of issue : November 09. 2010

Name and signature of authorized person : James Novak

Senior Product Manager
Universal Remote Control Inc.

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